

FLEXURE-SUPPORTED SPLIT REACTION MASS

ABSTRACT OF THE DISCLOSURE

An apparatus for stabilizing a scanning system during lithographic processing comprises a baseframe, a reaction mass, and a pair of flexures connecting the reaction mass to the baseframe. The apparatus also comprises a second reaction mass and a second pair of flexures, placed in parallel to the first to form a split reaction mass system. The apparatus is configured such that, upon acceleration of a stage movably coupled to the reaction masses, a resulting load is split substantially evenly between the first and second reaction masses. Also upon acceleration of the stage, the first reaction mass rotates in the opposite direction of the second reaction mass, resulting in a net moment reaction on the baseframe of approximately zero.

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